WHAT IS CLAIMED IS:

1. A method of forming a colloidal dispersion comprising simultaneously bringing together core particles and shell material in a high shear mixing zone within a dispersion medium to form core-shell particles.

2. The method of Claim 1 wherein said core-shell particles are formed in less than a few seconds from the time the core particles and shell material are brought together.

3. The method of Claim 1 wherein said high shear mixing zone has a turnover rate of greater than 0.1 turnovers/sec.

4. The method of Claim 1 wherein said high shear mixing zone has a turnover rate of greater than 0.5 turnovers/sec.

5. The method of Claim 1 wherein said dispersion medium comprises at least 5.0 % by weight of said core-shell particles.

6. The method of Claim 1 wherein said core particles and shell material are brought together such that the ratio of [the projected area of shell particles]/[surface area of core particles] is between 0.7 and 1.5.

7. The method of Claim 1 wherein said core particles comprise at least one member selected from the group consisting of inorganic colloidal particles, alumina, silica, boehmite, zinc oxide, calcium carbonate, titanium dioxide, and zirconia.

8. The method of Claim 1 wherein said core particles comprise colloidal silica.

9. The method of Claim 1 wherein said core-shell dispersion is a stable colloid.

10. The method of Claim 1 wherein said dispersion medium comprises water.

11. The method of Claim 1 wherein said shell material comprises a molecular material.

12. The method of Claim 1 wherein said shell material comprises a polymeric material.

13. The method of Claim 1 wherein said shell material comprises a oxide material.

14. The method of Claim 1 wherein said shell material comprises a particulate material.

15. The method of Claim 1 wherein said shell material comprises at least one member selected from the group consisting of hydrolyzable organo silane, biomolecule and biopolymer.

16. The method of Claim 13 wherein said shell material comprises at least one member selected from the group consisting of silica, alumina, zirconia, tin oxide and titania.

17. The method of Claim 1 wherein the pH of the colloidal dispersion is susbstantially the same as the pH of the aqueous shell material dispersion.

18. The method of Claim 1 wherein said medium comprises a dispersing aid.

19. The method of Claim 1 wherein said core particles comprise inorganic particles having a zeta potential of at least ± 30 millivolts.

20. The method of Claim 1 wherein bringing core particles comprises bringing a suspension of core particles and water wherein said core particles are present in an amount of between 1 and 50% by weight of said suspension of core particles in water.

21. The method of Claim 1 wherein bringing shell material comprises bringing a mixture of shell material and water, wherein said shell material is present in an amount of between 1 and 50%.

22. The method of Claim 1 wherein the bringing together of core particles and shell material is performed in a mixing zone within a larger aqueous solution.

23. The method of Claim 8 wherein said silica particle has a diameter of between about 50 and 300 nm.

24. The method of Claim 1 wherein said shell material comprises positively charged, colorless particles.

25. The method of Claim 24 wherein said shell material comprises aqueous zirconium salts.

26. The method of Claim 1 further comprising recovering said core-shell particles in the medium, simultaneously bringing together the recovered core shell particles in the medium and a second layer shell material in a high shear

mixing zone within a dispersion medium to form core-shell particles having two layers.

27. The method of Claim 26 further comprising recovering said core-shell particles having two layers in the medium, simultaneously bringing together the recovered core shell particles having two layers in the medium and a third layer shell material in a high shear mixing zone within a dispersion medium to form core-shell particles having three layers.

28. A colloidal aqueous dispersion comprising core-shell particles dispersed in an aqueous medium, wherein said aqueous dispersion has a percent solids of greater than 5 weight percent; wherein the solid consists of core-shell particles wherein the surface of said core-shell particles comprises a particulate material and the particulate material is present in an amount sufficient, and only sufficient, to cover the surfaces of all core particles, and the ratio of the average particle diameter of the core particles to the average particle diameter of the particulate material is greater than 4 and wherein said core-shell particle has a zeta potential of greater than ± 30 millivolts.

29. The dispersion of Claim 28 wherein said percent solids is greater than 10 weight percent.

30. The dispersion of Claim 28 wherein the core of said core-shell particles comprises silica.

31. The dispersion of Claim 30 wherein said silica has a diameter of between 50 and 500 nm.

32. The dispersion of Claim 28 wherein the shell of said core-shell particles comprises particulate inorganic oxides, polymeric latex or resin.

33. The dispersion of Claim 28 wherein the shell of said core-shell particles comprises particulate inorganic oxides selected from the group consisting of silica, alumina, hydrous alumina, zinc oxide, tin oxide, titania, zirconia, ceria, hafnia, yttria, europia, gadolinium oxide and iron oxide.

34. The dispersion of Claim 28 wherein said particulate particles have a diameter of between 5 and 100 nm.

35. The dispersion of Claim 28 wherein said surface of said core-shell particles comprises particulate material of different composition arranged in multiple layers.